ENORMOUS ENDOTHELIOMATOUS CYST OF THE GREAT OMENTUM.

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TRUE cyst of the omentum is of exceedingly rare occurrence, in fact, an exhaustive search of the literature has brought to light but nineteen cases. The Index Catalogue and the Index Medicus in the library of the Surgeon General's office contain thirty-four reported cases, but these have to be very carefully sifted out in order to obtain the cases of what I term true cyst of the omentum,—*i.e.,* cyst of the omentum itself. Twelve of these on careful analysis prove to be cysts springing from the omentum; attached to it by a pedicle or otherwise connected with it.

True cyst of the omentum is a cyst *within the cavity of the omentum,* lies entirely within its folds, and is not external to it in any way. A cyst springing from the omentum by a pedicle or connected to it in such manner as to show that it is clearly of it, is undoubtedly an omental cyst, but of an entirely different type from that serving as the basis of this paper. In fact, up to the present time, no one seems to have separated the cysts occurring *within* the cavity of the great omentum into a class by themselves as distinct from those wholly or partially *external* to the omental pouch. That this distinction should be made seems imperative, as the etiology of the one can be very distinct from the etiology of the other, as witness that of my case in which an omental endothelioma within the omental pouch was the beginning, and one of the external type in which an escaped ovarian cyst that had attached itself to the external border of the omentum is supposed to be the origin.

True omental cysts therefore are of sufficient rarity to merit attention whenever found. Fort (ANNALS OF SURGERY, 1907) reports a case which he considers to be the twenty-third on record, but according to my researches he has evidently admitted four cases not entitled to be classed as of this type, and his is really the nineteenth; the case I shall report making the twentieth.

The condition was called to the attention of the medical profession in 1851 by Gairdner, who reported the first case, but advanced nothing to show the etiology. Later, in 1885, Doran [1] asserted that dermoid cysts of the omentum were really ovarian cysts that had become separated from their pedicles, and mentions the case of a small, soft, white body found adherent to the posterior aspect of the omentum with a pedicle about four inches long which proved to be the left Fallopian tube, the soft white body being the ovary. He thinks the ovary had become displaced; the stretched tube and ligament would in such a case be bound to atrophy and the tumor get its blood supply from the omentum. He admits that this could not always be the case, as dermoid abdominal tumors have been met with in males for which he advances no explanation. Jacobi,[2] writing of omental tumors as a class, says: "Nearly all of them, perhaps all, are of lymphatic origin, and result either from dilatation of lymph veins or from a cystic degeneration of lymph-nodes." Rokitansky [3] describes such. Weichselbaum [4] reports a case of the first variety and Sabourin & Le Dentu [5] another that contained chyle. A case of the second variety is reported by Werth [6] and by Duearkler.[7] Werth's case was a cyst as large as a child's head, rising from a segment of the mesentery of the small intestine (singularly enough, much difficulty was met with at times in telling whether the author meant cyst of the *mesentery* or of the *omentum*). There were no formed elements. Rokitansky explains it as a cystic degeneration of lymph-node caused by a primary obliteration of vasa efferentia, while the entrance of chyle not being impeded must lead to retention and dilatation. A similar cyst has been described by Eppinger,[8] who erroneously supposed it to be a dermoid, three of which have been reported, one each by Waldy[9] and by Lipscher[10]—both external to but attached to the omentum; while Bonfigli[11] reports one contained within the cavity of the omentum itself.

The accompanying abstracts give a brief outline of each case of true omental cyst, while Table I, arranged in chronological order, is open to considerable analysis (fractional percentage not given).

ABSTRACTS IN BRIEF OF REPORTED CASES.

CASE 1.—GAIRDNER. The cyst was found beneath the anterior layer of the great omentum in a woman dying unexpectedly, having a large fibroid uterus. It consisted of a large closed sac, and contained a transparent, colorless serum.

CASE 2.—SIMON. Male, 44 years of age. Tumor could be felt in the right hypogastric region simulating a distended bladder. This tumor dated twelve years back but had never been painful. Catheterization brought only a little urine, and the catheter could be felt impinging against a resistent mass. Death five days after admission. Autopsy showed a tumor in the folds of the great omentum extending from the stomach to the upper part of the pelvis. It had a distinct thick-walled capsule, and contained much coagulated blood. It could be traced to no abdominal organ.

CASE 3.—JONES. Male, aged 58; farmer. Had always enjoyed excellent health. First complained two years previously of pain in the back and frequent micturition, with a feeling of weight and oppression in the bladder. He was relieved of these and not seen again for a year. Distressing nausea and vomiting with other dyspeptic symptoms were now complained of, together with renewal of the old symptoms. A small tumor was made out in the left hypogastric region which grew rapidly, and the man died. Autopsy: An enormously enlarged abdomen from ensiform cartilage to pubes; adhesions everywhere. A large cyst was found evidently originating in the omentum. It contained a broken-down sarcomatous mass weighing 15 pounds; also about 3 gallons of fluid. Lymphatic glands not enlarged. Tumor was an alveolar sarcoma.

CASE 4.—DORAN. Patient was a woman aged 58. Had suffered for many years from symptoms resembling cystic ovarian disease. Two years previously cyst had ruptured and filled again; had been tapped several times. Large cyst was found at operation intimately adherent to the parietal peritoneum near the umbilicus, and was entirely within the omentum. Recovery.

CASE 5.—GOODING. Girl, aged 19. When 18 years old she first noticed a lump the size of a hen's egg low down in right iliac fossa, which was painful chiefly at menstruation. It grew in size gradually upward. At time of observation it was as big as a cocoanut and reached

TABLE.

	Date.	Reporter.	Sex.	Age.	Treatment.	Result.	Reference.
1	1852	Gairdner, W. T.	Female	Adult	None	Death	Tr. Path. Soc., Lond., (1850-51) 1852, iii, 374.
2	1858	Simon, E.	Male	44	None	Death	Bull. Soc. Anat. d. Paris, 1858, xxxiii, 30.
3	1881	Jones, Talbot	Male	58	None	Death	Med. Rec., N. Y., 1881, xix, 600.
4	1882	Doran, Alban	Female	58	Removed	Recovery	Trans. Obst. Soc., Lond., 1882, xxiii, 164.
5	1887	Gooding, J. C.	Female	19	Removed	Recovery	Lancet, Lond., 1887, i, 311.
6	1890	Wells, Spencer	Female	4	Removed	Recovery	Brit. M. J., 1890, i, 1362.
7	1893	Cazin, M.	Male	48	Removed	Recovery	Bull. Soc. Anat. d. Paris, 1893, lxviii, 312.
8	1896	Erdheim, S.	Female	22	Removed	Recovery	Wein. klin. Rundschau., 1896, x, 131.
9	1896	Marfan, A. B.	Female	2½	Removed	Recovery	Press Med., Paris, 1896, 133.
10	1896	Jessett, F. B.	Female	Adult	Removed	Recovery	Brit. Gynaec. Jour., 1896-7, xii, 156.
11	1897	Hearn, W. J.	Male	8	Removed	Recovery	ANNALS OF SURGERY, 1897, xxv, i, 703.
12	1898	Braithwaite, J.	Female	4	Removed	Recovery	Lancet, Lond., 1898, ii, 1472.
13	1901	Jacobi, A.	Female	7	Removed	Recovery	Trans. Ass. Am. Phys., 1901, xvi, 232.
14	1901	Marsh & Monsarratt	Female	1 yr. 8 mo.	Removed	Recovery	Brit. M. J., Lond., 1901, i, 511.
15	1902	Catman, H. H.	Male	21	Removed	Death	Brit. M. J., Lond., 1902, i, 1267.
16	1903	Schramm, H.	Female	1	Removed	Recovery	Zentralb. f. Chir., 1903, xxx, 564.
17	1903	Boyd, S.	Male	11	Removed	Recovery	Clin. Jour., Lond., 1903, xxi, 306.
18	1905	Young, W. McG.	Female	9½	Removed	Recovery	Lancet, Lond., 1905, i, 157.
19	1907	Fort, R. E.	Female	2½	Removed	Recovery	ANNALS OF SURGERY, 1907, xlv., iii, 382.

to the umbilicus. Diagnosed as ovarian cyst with a long pedicle. At the end of two years she began to suffer with occasional vomiting after meals, and considerable shooting pains in and about the tumor, and tumor had enlarged very much. Operation disclosed a cyst densely adherent to parietal peritoneum, and embedded in the folds of the omentum; there was no pedicle. Some months previous to discovering the lump she had received a severe blow in the stomach. Recovery.

CASE 6.—SPENCER WELLS. Female, aged 4. Had large abdomen since early infancy that has increased in the last year. Diagnosed ovarian cyst. Operation showed a thin-walled cyst of omentum in the right iliac fossa, adherent to abdominal wall, cæcum and appendix. Recovery.

CASE 7.—CAZIN. Male, aged 48. First noticed the tumor the previous year which had developed without any history of trauma, and had gradually enlarged. Had been tapped several times, and 7½ liters of a bloody fluid withdrawn. Diagnosed as cyst of pancreas. Operation showed it to be a cyst of the great omentum, and adherent to large intestine. Recovery.

CASE 8.—ERDHEIM. Female, aged 22. Five years previously the tumor had apeared without cause, and had reached its present growth in fourteen days according to patient's account (this is questioned). No traumatic history obtainable, but has often done heavy lifting. Diagnosis: Ovarian cyst. Operation disclosed a bluish, transparent cyst wall adherent over a wide area, and covered with omentum. Cyst required opening and evacuating before it could be removed. There was no connection with any of the pelvic organs. Tumor reached from transverse colon to the bladder. Recovery.

CASE 9.—MARFAN. Female, 2½ years. Family history negative. Mother had noticed that abdomen had always been large, and at the age of 15 months it began to increase in size, and has been steadily enlarging for a year. No disturbance has been manifested in the physical condition until toward the last few weeks, when emaciation set in. Aspiration brought a blackish, hemorrhagic liquid—about two liters altogether. This had gradually reaccumulated. Operation revealed a cyst containing a large quantity of fluid. It was a multilocular cyst within the folds of the great omentum and had a pedicle. Recovery.

CASE 10.—JESSETT. Female; adult. Case was diagnosed as ovarian cyst. Operation showed a cyst within the folds of the omentum and adherent to upper part. It contained a quantity of cholesterin. Recovery.

CASE 11.—HEARN. Male, aged 8. At birth his physicians noted that the abdomen was markedly distended. This disappeared at six weeks and was not particularly noticeable again until 6 years old, when the abdomen again began to distend. In the meantime he enjoyed good health. Of late, abdomen has increased rapidly in size, the chief difficulties being weight, dyspnea and frequent micturition. The abdomen was enormous, measuring 44 inches in circumference. An omental cyst was suspected, owing to lack of symptoms of other troubles. Operation discovered a cyst containing a dark greenish fluid and many other cysts. After evacuating a number the mass was drawn out and found to be attached to the great omentum between the folds of which it had developed; it weighed about 50 pounds. Recovery.

CASE 12.—BRAITHWAITE. Female, aged 4. Measured 22¾ inches at level of umbilicus; this had increased during two months. Tumor was found to be entirely within the folds of the great omentum and with the exception of adhesions to the intestine was easily removed. It contained 3½ pints of fluid. Recovery.

CASE 13.—JACOBI. Female, aged 7. Four years previous to seeing patient abdomen began to swell and the child lost flesh. A diagnosis of tubercular ascites was made and two quarts of a clear, slightly bloody serum was drawn off. After two years the swelling was again in evidence and was tapped a second time. Operation disclosed a very thin-walled cyst, multilocular, containing about two quarts of fluid. It was incorporated in and involved the greater part of the great omentum; it narrowed into two pedicles as it approached the stomach. Recovery.

CASE 14.—MARSH and MONSARRATT. Female, aged 1 year, 8 months. Abdomen was noticed to be enlarged about four months previously, but there was no complaint of pain. Abdomen measured 23½ inches just above navel. Was tapped four times. Operation showed a thin-walled, multilocular cyst springing from omentum of greater curvature of the stomach, and entirely enveloped in omentum. It contained about ten pints. Recovery.

CASE 15.—CATMAN. Male, age 21. Three months previously had received a severe blow in the abdomen from the shaft of a cart while riding a bicycle. Accident kept him from work for five weeks. Since then has complained of a lump in his stomach. Operation disclosed a tumor connecting with an opening into the stomach. Tumor was a blood-cyst between the layers of great omentum. Death.

CASE 16.—SCHRAMM. Female, aged 1 year. Enlargement of abdomen had been observed four months previously; was growing larger. Abdomen measured 91 cm. in circumference at umbilicus. Tumor mass could be easily outlined. Diagnosis: Tubercular peritonitis, with fluctuating exudate. Operation disclosed a cyst occupying entire omentum, more a conglomerate mass of cysts. It was removed entire. Recovery.

CASE 17.—BOYD. Male, aged 11. Family history negative. Always felt well until January of the present year (1903). His trouble began with vomiting, loss of appetite, and inability to run about because he felt so tired. His abdomen began to swell at this time and has increased steadily in size. Has had constant pain in lower abdomen, but never of a severe nature, and has lost much flesh. Diagnosed as tubercular peritonitis; also cyst of the left kidney. Operation disclosed a large thin-walled cyst covered by and occupying the cavity of the great omentum. Twelve pints of greenish-brown fluid removed. Was attached to the pancreas, but did not appear to spring from it. Recovery.

CASE 18.—YOUNG. Female, aged 9½. Body had always been full from infancy, and was enormously distended from beneath the costal arch—which was bulged—to the symphysis. At operation a thin-walled cyst was found containing other cysts. It involved the anterior layers of great omentum, and was adherent to the stomach; 32 pints of fluid were removed. Recovery.

CASE 19.—FORT. Female, aged 2½ years. Had had two attacks of acute indigestion, each lasting several days. Abdominal enlargement was noticed by the mother eighteen months previously. Child measured 28 inches at level of umbilicus. There were no symptoms other than dyspnea. Operation revealed a dark glistening tumor within the folds of the great omentum. Recovery.

THE FOLLOWING CASES HAVE BEEN REPORTED AS OMENTAL CYSTS, AND WHILE SUCH, DO NOT COME WITHIN THE MEANING IN THE SCOPE OF THIS PAPER.

1. GAY. (Ext. f. record of Bost. Soc. f. Med. Imp., 1859, iii, 248.) Female, age 46. Is not at all certain what he found, but in addition to opening the abdomen and evacuating a large amount of fluid, he drew up into the wound a number of tumors firmly connected with omentum, of a firm "scirrhus" hardness, and firmly fixed in the omentum. He feared to remove them. Recovery.

2. THORNTON. (Brit. M. J., 1882, ii, 1243.) Adult; female. A small multilocular cyst the size of a cherry was removed during ovariotomy. It was attached to the lower border of the great omentum by a small pedicle. He thinks it was an ovarian cyst owing its origin to cell infection.

3. THORNTON. (Brit. M. J., 1882, ii, 1243.) Female, 47 years old. Tumor the size of a cocoanut with a thick sac attached by thick pedicle to the omentum. It lay under the right border of the liver; it was a mixed sarcomatous cyst. Recovery.

4. ORMSBY. (Med. Press & Circular, Lond., 1883, xxxv, 258.) Female, aged 26. Had had large abdominal tumor for six years, and measured 54 inches at the umbilicus. Operation disclosed a multilocular tumor containing fluid so thick it would not run through the trocar. It sprung from the great omentum.

5. EDEBOHLS. (New York Jour., Gynæc. & Obst., 1893, iii, 614.) Female, aged 37. Had noticed symptoms of enlargement for eight months previously. Tumor had a distinct cyst wall which was gangrenous over a considerable area. It was a mono-cyst, and contained a chocolate-colored fluid. It had no connection with any structure, excepting the omentum to the lower border of which it was attached by a firm pedicle.

6. KEEN. (ANNALS OF SURGERY, 1898, xxvii, 220.) Male, age 48. About fifteen months before had noticed a lump a little larger than an egg in the lower right segment of the abdomen, which gradually increased in size, of late rather rapidly, and finally filling the abdomen and causing much respiratory trouble and frequency in urination. Had never caused any great pain. Had no gastric or intestinal symptoms, excepting from compression of the bowels. Had lost 30 pounds in weight. Trochar at operation brought about 3 pints of dark, bloody fluid. On the right side the tumor was free from adhesions, excepting to the omentum, but on the left side it was intricately adherent to the omentum and the stomach was spread out fan-shaped over its entire surface. It was a mixed-celled sarcomatous cyst. The danger of tapping such a cyst was well

illustrated, as had it been tapped in the upper part the stomach would have been perforated, being spread out over it.

7. ROSE. (King's College Hosp. Rep., (1896-7), 1898, iv, 101.) Adult; female. Had been operated upon for a multilocular ovarian cyst. About a fortnight after the operation she complained of pain in the right loin. Examination disclosed a tumor occupying the right lumbar region and extending up under the costal arch. Diagnosed as a renal tumor. At operation a multilocular cyst was found connected to the omentum by narrow adhesions. Recovery. Rose thinks it originated in the right ovary and became detached through twisting of the pedicle.

8. MAUCLAIRE and DESARNAUX. (Bull. d. Mem. Soc. de Anat., Paris, 1902, lxxvii, 683.) Female, aged 52. First began to complain five months previously and was treated for gastric troubles, complicated with the uterus. There was some emaciation, obstinate constipation, and a prominence in the subumbilical region the size of an adult's head. A provisional diagnosis was made of cancer of the head of the pancreas, also of a cystic tumor. Operation, with death six hours later. Autopsy showed a probable cancer of head of pancreas, with hemorrhage into the omentum from a pancreatic vessel.

9. SCHWARTZ. (Gaz. de Osp., 1902, xxiii, 764.) Female, age 43. Family history negative. Never remembers having been ill; has had several abortions and was forced to take to bed because of pains in left side. Present trouble dates back eight months, when there was sharp epigastric pain and vomiting, and she noticed abdomen beginning to enlarge. Her physician found a tumor in the epigastric region. This was aspirated twice, getting some fluid. Tumor extended from ensiform cartilage to near umbilicus. Diagnosis: Either echinococcus cyst of liver or independent of it, or might be a cyst of pancreas, or from stomach and transverse colon. Operation showed cyst completely adherent to lesser curvature of stomach. Cyst wall was stitched to abdominal wall and aspirated two days later and as much of cyst wall cut off as possible. Recovery.

10. LANCE and LECÉNE. (Bull. de Mem. Soc. de Anat., Paris, 1903, lxxviii, 400.) Female, aged 60. Had noticed presence of tumor for four years, which had gradually increased to large size, until abdomen was the size of the uterus at full term. Diagnosis: Multilocular ovarian cyst. Operation revealed seven cysts containing yellowish fluid and some blood. Mass was easily removed. It was free in abdomen and had only two slight adhesions. It contained ten liters of liquid, and had a distinct capsule. Recovery.

11. MATTHEWS. (Brit. M. J., Lond., 1905, 1642.) Male, aged 8. Following attack of measles nine months previously he complained of pain in left side. There was gradual distention of the abdomen. Greatest circumference measured 27 inches. There was no history of any previous illness or trauma. The tumor consisted of a large sac and contained 6 pints of dark-brown fluid. It was attached by a thick pedicle of omentum to transverse colon.

12. BIDWELL. (Brit. M. J., Lond., 1905, ii, 806.) Male, aged 62.

Had always been stout, but recently his abdomen had begun to enlarge and was enormously distended. It was tapped, and 4 gallons of blood-stained fluid withdrawn. Afterwards a hard mass could be felt, and was diagnosed altogether five times. Diagnosis: Malignant disease of the omentum. Operation disclosed a cystic tumor that sprung from the omentum by a distinct pedicle. It contained a growth which was not examined. Recovery.

Of the nineteen patients, nine were adults—47 per cent., while ten were below ten—52 per cent. (One of eleven years is included for convenience.) This is too nearly an even division to lend much weight to the theory of congenital origin. As a matter of fact seven cases only—36 per cent.; those of Wells, Hearn, Marfan, Marsh & Monsarratt, Young, Schramm and Fort are clearly congenital by their histories, while those cases occurring in adults (47 per cent.) were probably not congenital at all. It would seem, therefore, quite likely that while some cases are undoubtedly congenital, others may be acquired in later years through traumatism or other causes, just as we have hernia, hydrocele and many other affections both congenital and acquired. Certain it is that six, cases 2, 3, 5, 7, 8, 15, specifically state or intimate that they felt perfectly well up to the time of discovering the tumor, while three, cases 5, 8(?) and 21 are traceable to trauma—(my own making four).

One very striking thing shown is the great frequency of occurrence in females, 13 cases—79 per cent., as against six in males—31 per cent. This same preponderence being found also in the external variety of omental cysts. It has been suggested that some of these have originally been ovarian cysts that have become separated from their pedicles and attached to the omentum. This is not at all unlikely in cases occurring in females and in those of the external variety, but can certainly not be said of those found in males.

The operative results have been especially brilliant. Sixteen cases were operated upon with one death, a mortality of 6 per cent. the oldest case being 58 years, the youngest 1 year of age.

The histological characteristics and the contents of these cysts are of such a wide variety that it is hard to suggest a distinct etiological factor. Lymph, chyle, serum and blood have all been reported; my own contained an enormous blood clot, and thirteen of the nineteen cases mention a distinct capsule or the record is so worded as to leave little room for doubt of its existence.

My own theory regarding the etiology of my case and all similar cases where a growth is involved, is, that there was first the endothelioma of the omentum; by inflammatory action the two surfaces of the omentum became fused together, forming a closed sac within which grew the endothelial cyst. The blood clot contents of course being derived from repeated hemorrhages from the parent tumor.

My case is as follows:

Ada D., colored, married, age 50. About one year ago she noticed a swelling in the lower abdomen which gradually increased in size until the abdomen became enormous, the distension extending up under the costal arches causing them to bulge, and interfering very materially with respiration. Constipation was also a marked feature. So far as she knew nothing had ever happened to her as a possible cause other than repeated blows in the abdomen, given by a small child butting its head into her while running at full speed as a pastime. At times the tumor pained some, but not to any great extent; and she had always enjoyed good health up to the appearance of the tumor. Her principal trouble was from the great weight, difficult breathing, frequent micturition and constipation from pressure. Examination showed the abdomen enormous in size and distended apparently almost to bursting. In the prone position the swelling began from behind the ensiform cartilage and costal arches; breathing impaired. Tumor fluctuating. Vaginal examination negative. Diagnosis: multilocular ovarian cyst.

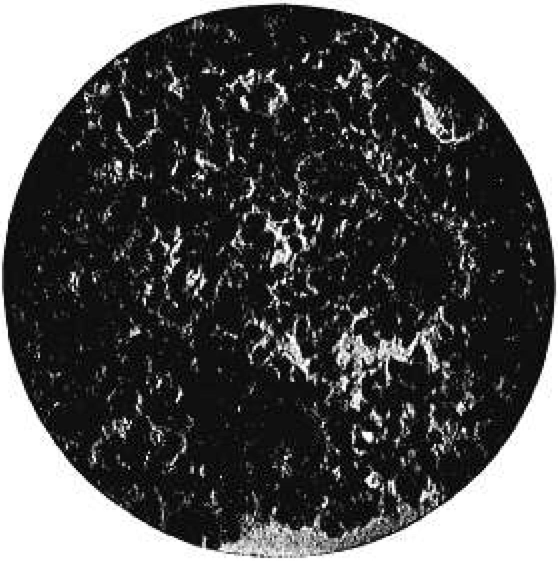
Operation.—Incision through right rectus. Abdominal wall very thin, not over one-quarter inch, including all layers. Immediately on opening the peritoneum the tumor presented itself, dark bluish-black in color. A trocar plunged into it brought away about half a pint of grumous fluid. There was also a small quantity of ascitic fluid external to the tumor. The tumor was semi-solid and occupied the entire abdominal cavity except the deep pelvis. No connection whatever with uterus, ovaries or tubes, and the entire mass was completely enveloped within the cavity of the great omentum, and lay anterior to the intestines. Veins of the omentum enormously distended, many as large as a lead pencil, formed a network or mesh completely enveloping the tumor mass, and very little of the omentum itself remained,—only the network of veins,—most of it evidently having been absorbed by pressure. The transverse colon was pushed down almost to the symphysis pubis. There were very few adhesions, and these were mostly quite flimsy and easily broken down. There was one very firm fibrous band attached to the abdominal wall anteriorly, and another tough one almost like a pedicle, to the stomach, causing a suspicion that the tumor sprang from an old gastric ulcer, but there was nothing in the history to warrant such a finding, and later this was found to be only a dense adhesion. The wall of the stomach was slightly torn in the external coats in separating this adhesion and was whipped over with catgut. There were also some dense adhesions to the mesocolon and of course everywhere to the omentum. In fact very little of this structure was saved, being ligated in bunches and divided in order to turn out the tumor, which, owing to its large size and solid contents was impossible. Accordingly the sac which was very thick and tough was opened disclosing a number of smaller cysts inside, and enormous quantities of blood clot, many handfuls of which were removed before it was possible to pull the tumor through the incision. There was no pedicle.

After removal of the tumor the liver was found much atrophied from long-continued pressure, pale and anemic, and containing several small retention cysts which were punctured. Many bleeding points required ligation where omental adhesions had been ruptured, and a rent in the mesocolon was sutured. Salt solution was given under the breasts and about a quart sewed up in the abdominal cavity. Morphine-hyoscine-strychnine anesthesia was used supplemented with a few whiffs of chloroform.

The patient reacted well from the operation; there was no shock, and she made an uninterrupted recovery.

The specimen as removed weighed eight pounds,—which was simply the sac and parent tumor, it did not include any of the blood clot. Before opening, the tumor probably weighed not far from forty pounds. It sprang from the omentum between the stomach and transverse colon.

FIG. 1.



Section from author's specimen. × 225.

PATHOLOGICAL REPORT, BY DR. JOHN S. HEATE.

With reference to the tumor of omentum case of Dr. Hasbrouck, microscopical examination shows it to be an endothelioma, or according to the more modern classification a mesothelioma.

The cells comprising the tumor are in general epithelial-like in structure, some having considerable protoplasm and in shape polygonal, round, cuboidal or fusiform, according to location and pressure. They also show a disposition to arrangement in columns encircling the blood vessels, from which they appear to have their origin. The fibrous stroma is very vascular, resembling some forms of angio-sarcomas which, taken with the intimate relation between the cells and stroma, places it with the connective tissue type of tumors, and this type of cells, their arrangement and the organ involved makes it most probably an endothelioma. (Fig. 1.)

My case appears to be unique in two particulars: 1. Its character, originating from an endothelioma of the omentum. 2. The contents, an enormous blood clot. (Case 2, Table I, might possibly come under this variety.)

Symptomatology and Diagnosis.—Very little is to be gained from the symptoms leading to the diagnosis of the disease. In some cases there is pain of more or less intensity, but usually not very severe. Gastric disturbance—nausea, vomiting and anorexia are often present, but not in all cases; weight and dyspnœa are complained of, and bladder symptoms and constipation from pressure. Emaciation occurs after much enlargement has taken place. In my own case there was nothing whatever to point to a diagnosis. From all of which it would appear that there are no specially characteristic symptoms,—the condition merely simulating the other forms of cystic growth of the abdomen.

It is not strange therefore that one fails to make an exact diagnosis, as the condition simulates such a wide variety of disorders. In fact, almost everything else has been diagnosed; lipoma, ascites, ovarian cyst, aortic aneurysm, hydatid cyst of the liver, cyst of urachus, cyst of mesentery, pancreatic cyst, and encysted and tubercular peritonitis have all been named. It is doubtful if the diagnosis can be accurately determined from the limited amount of data usually at hand and the extremely rare occurrence of cases, and the condition is much more apt to be discovered at operation than determined beforehand.

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